# 432 MHz MHz AND ABOVE EME NEWS

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#### **EME NETS**

14.345 KHz at 1600 Z SAT/SUN

- NET CONTL: JOE, K1RQG (207-469-3492), E-MAIL: Joe, K1RQG
- EME STANDINGS: JIM STARKEY, W0KJY, 3845 CAPITOL DRIVE, FT. COLLINS, CO 80526, (970) 226-0669)
- THE NL WEB VERSION IS PRODUCED BY W6/PA0ZN AND AVAILABLE AT: 432 MHZ AND ABOVE NEWSLETTERS.

# **CONDITIONS**

Despite WX problems in many parts of the world, the 2nd July SW turned out well. For a summer time SW with no dxpeditions or contest activity and competition from the CSVHF Conference in the states, activity faired very well. And conditions,

especially on 1296 where there seemed to be more SSB than CW, were pretty good.

# PARIS 98 EME CONFERENCE NEWS

A good place for the conference has been located. It is not 100% sure, but very likely. It is located in PARIS, and is reasonably priced. More information will come later. Unfortunately only a few people have pre-registered for the conference. [This is a problem. I have been hearing a lot of very favorable comments here in the states. The XYLs are very much in favor of Paris!] It is really very important that you pre-register. This is the only way to give an accurate (and reasonable) price for the conference. There are 3 ways to register:

- 1) The WWW site (only 52 connections so far, including ours!)
- 2) Fax to F1EHN
- 3) E-mail to F5HRY or any of the organizing team

## DX1XF

Frank worked on 1296 back in April HB9BHU, DJ9YW, W2UHI, HB9BBD, in June JA4BLC, OK1KIR, DJ9YW, ZS6AXT, VE1ALQ, W2UHI, N2IQU, KB2AH on SSB, OZ4MM on SSB and DC6UW on SSB for an initial, and during the early July SW only GW3XYW and W2UHI. Frank was disappointed by the activity during this last weekend. He was on for the 2nd July SW, but we do not yet have his report.

## **DF9CY**

Chris and EME "old timer" brings us up to date on his activities -- I have not been active for a while. I moved to a new QTH, and the "new" house requires a lot of work. Most of it is now done, and I am looking forward to being QRV again on 70 cm. DC6UW, Norbert, a new station on 23 cm EME, is in JO44 and relative close to me - much closer than Per, DK7LJ (and DL0SHF). Norbert uses the same type dish and feed (VE4MA) as Per. I took down my 2x17 el yagis for 144 MHz to make room for the 4 x 33 el yagi array for 70 cm. EME wise I will concentrate more on 432 MHz than on the DL0SHF operation. My new address is (Christoph Petermann, Pommernweg 11, D 24229 Schwedeneck). My locator is JO54al (the same as before). My telephone is \*\*49-4308-182050, e-mail is: DF9CY and homepages: Chris, DF9CY

## F5HRE

Herve writes -- I am now the happy owner of a 3.10 m dish good to 10 GHz (TV uplinks), which I plan to put on 23 cm, (maybe 3 cm if I can find a >25 w TWTA, mine is only 10 w!). The problem is that this dish is rather deep (f/d =3D 0.3). I need to build a feed for that dish, and as far as I remember the IMU one is for 0.5 to 0.6, and the VE4MA one for around 0.4! [The VE4MA feed is adjustable. The beam can be optimizer by changing the position of the scalar

ring with respect to the mouth of the horn. There is no real great feed I know of for a .3 f/d, but the VE4MA works quite well for deep dishs - better than anything else I have seen. I recommend its use.] Maybe someone can help with ideas? I believe OE5JFL has done some work with deep dishes. This dish will be mounted at my home QTH (different from F6KSX), to replace my 432 MHz 4 yagis. I cannot use them anymore because of QRM from the radio localization system in France. In the future, I can be deleted from the 70 cm list. [I am Sorry to hear about this. Can anything be done?] Unfortunately absolutely nothing for the moment. I have found no solution to the interference problem. We are waiting for a new band plan. We are 2nd in F for the 430-434 band and radio localization is 1st.

#### G3HUL

Doug was disappointed with the July SW -- I had only 3 QSO's in about 20 hours of operations! No other stations were heard. [There was quite a bit of activity on 70 cm during the SW. You can see this from the reports. Possibly your poor results are related to the times you were listening. Activity does seem to be concentrated during the common window between Eur and NA. This is a big problem for stations in other parts of the world. Particularly for those with limited windows - even in the western US and Canada.] Since the contest, activity on 432 seems to be getting less and less. It seems hardly worthwhile to maintain the 432 setup for just the contests. Is this because the trend is towards the higher bands and 432 has now become old hat? [There is no question that people migrate toward the frontier, but we have been seeing a continuing flow of new stations moving up to 70 cm too. And many of the older stations who now operate on the higher bands, are still regularly QRV on 432. I try to operate 432 on Saturday and on 1296 on Sunday of the SWs.] A suggestion I would like to make is that when activity is low we listen on transmit during the 1st 5 min on the hour and half hour. This would be much better than listening to nothing but noise and ones own echoes for hours on end! Of course, if things brighten up it could be a different matter. Anyway, I will use this method when activity is low.

## **G3LTF**

Peter had a frustrating time during the July session -- Condx seemed good on 432 and excellent on 1296, but I had big problems on that band. On 13 cm, on 26 July I worked OE9ERC with a terrific signal (579) and heard DL9EBL at a similar level, but he didn't hear me. I also heard and called OE9XXI (539), but no reply. I was hearing weak echoes at the time. I have since found a major break in the feedline outer jacket which I think was the cause of excess loss on 2.3 GHz. I now have the feedline loss down to 3.5 dB (60 m of feedline) on that band, and I should be louder as a result. I then moved to 432 on 26 July and worked CT1DMK - nice readable signal, then K2UYH (559). I put out lots of

CQs, but no activity, though KB3PD was a nice signal on his skeds. On 27 July I started on 1296, but had problems with my 6 tube amp oscillating which I couldn't cure. Then a power transistor in the LO chain blew and when I'd replaced that I ran up the PA again to hear the sound most dreaded by 23 cm operators - Running Water!! So that was it for the day, everything out of the rack and dry it out, etc. I'm still sorting out the cause. I heard on 23 cm ON5RR, S59DCD, HB9SV, OK1KIR, VE3BQN, ZS6AXT, W2UHI, KB2AH, K2UYH, K2DH, HB9BHU, OH2AXH, PA3CSG and F2TU. Excellent copy on SSB from several stations including K2UYH and F2TU. I don't know why the 6 tube PA is now going unstable and am interested in ideas from anyone for a cure. My standings are now on 432: #315, DXCC 54, WAS 47 and grids 204; on 1296: #124, DXCC 28, WAS 19 and grids 101; and on 2304: #11, DXCC 9, WAS 2 and grids 11. I intend to be at the Paris conference next year.

## **G4ERG**

Peter says -- Signals seemed very good over the weekend, although skeds didn't workout very well and most contacts were made on random. I worked on 26 July JA2KRW nil - not QRV due to severe WX, NA4N nil, CT1DMK (O/O) for initial #67, SM2CEW (559/549), K2UYH (559/549), OK1KIR (O/O), WI7Z (O/O) #68, DF3RU (559/549), W7FN (O/O) #69, K3HZO nil - [presently not QRV and rebuilding his array after storm damage], KB3PD nil - the moon was only 10 deg el and behind trees and CWNR JH4JLV, and on 27 July at 0755 I was called by UR5?? for an hour but couldn't get the call - a chirp on sig and my narrow filter didn't help. Stations heard were DL6WU, KB3PD (before sked), G3SEK and G3HUL. My home brew auto-tracking and polarity rotation is working FB. Power was up to 500 w, but I should have a little more for the next sked weekend. Skeds are welcome via e-mail at: PETER, G4ERG or the NL.

# **JA4BLC**

Yoshiro's July EME report -- I was pleased to welcome Jinson, HL5QO from Korea to my QTH on the last weekend of July. Jinson traveled to us by ferry boat and railway in stormy WX and stayed 2 nights. As you know he had heard successfully OE9XXI's signal on 1296 two years before for the 1st ever 1296 EME in Korea. My friends (JR4AEP, JR4BRS and JA4CMZ) also welcomed Jinson to their stations. Jinson is fighting the Korean radio authority to get a high power licence for 1296 moonbounce. Korean hams are allowed only 1 w on 23cm, (similar to Japan). I was attacked by a big typhoon during the SW. This limited activity by many JA stations. Fortunately the wind ceased occasionally on Sunday morning and I was able to work on 23 cm ON5RR (O/O) for initial #70.

#### K2DH

Dave submits the following thoughts on making skeds -- It is perfectly acceptable for stations to not take, make, or accept skeds - that is their prerogative. But, if a station DOESN'T want skeds, I think IT IS THAT PERSON'S RESPONSIBILITY TO INFORM K1RQG OR KLAUS OF THAT FACT. I have skeded a number of stations repeatedly - mentioning their call signs here would not be productive - if they get the notes or newsletter, they know who they are- and they simply do not show up. Others listening at the same time have confirmed this. If I had an infinite amount of time to spend playing on the moon, it wouldn't matter so much. But I don't - so I try to maximize the number of stations I can work by requesting skeds with new ones. I believe that I'm not the only person in this boat - very few of us can spend from moonrise till moonset just looking for stations these days. The position of the moon has not been perfect for skeds, as was noted during a recent discussion on the 20 m net - and maybe this makes skeds an even more valid solution to the problem of working new ones - you know you only HAVE to be present for the skeds. Any other time spent on the moon is strictly by desire... and success breeds more desire, in my opinion. I guess the bottom line is that accepting a sked is like making a COMMITMENT to the other station. If people don't want to make that commitment, then they should let those who set up the skeds know, so that those of us who request skeds won't expect a commitment from those who don't want them, and we won't request them. Net participation is also very important. It's another tool in the EMEers toolbox - another way to get and request skeds with new stations, to find out the results of QSOs, etc.

## KB2AH

Tom has the following comments on a 23 cm frequency for calling small stations -- I would like to propose reserving .020 +/- 3 kHz for a small station calling freq. Smaller stations would call CQ on this frequency. The bigger stations would make and finish their contacts with the smaller stations, but then move on to where ever. It is a fact that there is much QRM on .010. This is not the real problem. The problem is that marginal stations will call CQ on or near .010, and not be heard by other marginal stations and even bigger stations because of the QRM. These stations get disgusted and leave the air. (I hear this all the time off the moon.) NOW who is a marginal station? I think we all know if we are or not.. Me, XXI, UYH, UHI, DH, ERC, MM, ... and so on just to mention a few. If we all could come to a agreement on this, I believe activity on 1296 would improve significantly.

## KD4LT

Scott is very close to getting on 23 cm EME with his new 6.7 m dish. Initial tests indicate the system is working FB. His 1st look at Sun noise indicated 16.5 dB. There is still work needed to get the feed system optimized. With the help of Darrell, VE1ALQ, Scott has installed the tracking system designed by

F1EHN using a US Digital encoder and tilt sensor. This system is very accurate, and with the tilt sensor, you can remove any flaws built into the dish mounting mechanics. One lesson learned is that the system has to move slow to prevent overshoot and hunting. A new gearbox with higher ratios, a faster CPU, and a remount of the tilt sensor at the pivot point corrected early tracking problem. Scott hopes to be on with 100 w in a couple of weeks. Scott was on 70 cm EME for a very short time during the July SW. Work still takes lots of his time. Scott heard several stations but did not attempt to work anybody due to a flaky preamp. Scott has since repaired the problem and all is working OK with the 70 cm dish.

#### NU7Z

Rick reports -- I was on 23cm EME the 2nd day of the SW from 1000 till 1200. I heard my own echoes quite well at times. My sked results were: DL9EBL nil - I don't think he was there, S59DCD nil and ON5RR (M/O) - If he is still running a 6 m dish and 40 w he was quite good copy! Heard but not worked was KB2AH on SSB on 010, and VE3BQN with a very good signal. I was running about 250 w all evening. -- Rick plans to concentrate on 6 cm EME in Aug and will not be on 23 cm.

#### **OE9XXI**

Peter worked on 1296 on 12 April VK2FZ/4 (O/O) for initial #212 on linear pol. The day before they had tried with nil results. Also QSO'd was DJ9YW (559/559). He added on 10 May SM3AKW (559/569), I5MPK (549/579) #213, OE9ERC (579/579), W2UHI (569/589), K2DH (569/589), HB9BBD (569/569) and NP4B (O/O) #214 and DXCC 38. On 2300 Peter QSO'd on 10/11 May NU7Z (449/529), OE9ERC (579/579) and DF9QX (549/449), on 14 May LA8LF (449/559) for initial #49 and DXCC 19, and on 7 June JA7BMB (549/559) #50. Heard were DF9QX, OK1KIR, LX1DB and ZS6AXT. [Peter's report arrived in time for the last NL, but was missed due to an error - sorry.] During July Peter worked 9H1ES in Malta. He says Fortunato was running linear pol and having pointing problems, but that he= is working on a circular feed and should be in much better shape soon.

# **ON5RR**

Marc and (ON7EH) write -- We were active on 1296 only on Sunday of the July SW. We started operation at about 0100 and shutdown at about 1345. In our little country we had quite a bit of wind and rain, but the dish kept more or less pointed to the Moon. We missed our sked with VK2BE due to a failure of our PA HV power supply. During the night we still had some sparking in the capacitors (voltage drops more that 300 V). This sparking produced the chirping sound on our CW. Sorry for this, it will be repaired next time. We did not hear a thing from VK5MC during our sked, nor from other VKs. We worked the

following initials JA4BLC, DL9EBL, DF9QX, DJ9YW, HB9BHU, SM2CEW, VE3BQN and NU7Z. Stations heard were JH5LUZ, OK1KIR, F2TU, DD1XF, ZS6AXT and PA3CSG. We made 17 QSOs this SW. The visitors in the shack liked best the dual mode contact with OE9XXI. Peter had an excellent SSB signal (55), we replied on CW. During the Aug SW we plan to be active only on 24 Aug from 0500 to 1100 around 1296.025.

## **OZ4MM**

Stig's June reports just missed the July NL -- I am sorry for this late mail, but my e-mail has been down the last few weeks. I worked on 28 June on 2304/2424 JH3EAO nil, WA8WZG nil and partial G3LTF, on 29 June on 1296 DC6UW for initial #120 on SSB, DD1XF on SSB, K2UYH on SSB, K2DH on SSB, VE1ALQ on SSB, OE9ERC on SSB, SM3AKW, ZS6AXT, W2UHI, G3LTF, KB2AH and W4OP #121 - heard were HB9BBD and VE3BQN, on 2 July also on 1296 NL7F #122 with the dish behind the trees on both ends!, on 5 July on 2304 G3LTF and WA8WZG - both initials, nil JH3EAO - no other JA`s were heard.

## **PAOPLY**

Jan is very disappointed with the results of his 6 m dish on 1296 and is investigating the cause -- We measured an unacceptable leakage between the RX and TX ports of our feed of about -4 dB. We are using a short W2IMU horn and DJ9BV coupler. The coupler is OK so the horn is now suspected to be the problem. I found no nulling post was used, and the length of the straight section does not seem correct (42 cm, normally used with polarizer screws). [You do not want to use a hybrid with the IMU horn if the polarization section is in place?] We need to modify the feed after our holidays and will check further before actual mounting in dish. I obtained a 3 m solid dish with azimuth drive (ex Andrews) to replace the 2 m dish to be used for 3 cm EME.

# SP5CJT

Mike sends bad news. Two booms of his 8 yagi array were broken during a spring storm. Due to the combination of bad WX and a lot of work, Mike has not yet had a chance to repair his antennas. He will try to do so before the ARRL EME contest. Mike also has a new e-mail address:

Mike. SP5CJT

### W1ZX:

Willie has not been QRV for the last 2 or 3 months because he has been working on a new dish. The dish is 32' with an f/d of 0.55, and uses 24 ribs. The ribs were built 2 or 3 years ago. This summer Willie is attaching the ribs to the hub and putting the screening in place. This a big job and he is still working on the project. Willie is also remodeling his shack - new carpet, etc. Willie is hoping to be QRV again late this Fall. If all goes as planned, he will have a 24'

dish for sale this fall or winter, 18 ribs, 30" x 36" HUB, the screening is NG, 3/8" rings and outside 1 inch rim are OK. The dish is for pick up only at Waldorf, Maryland, just south of Washington, DC.

## W4UHI

Frank's 23 cm activity has been unusually sparse for him. He QSO'd on 26 July DD1XF and DJ9YW, and on 27 July F2TU, OH2AXH, ON5RR, DL9EBL, DJ9YW, HB9SV, ZS6AXT, K2UYH on SSB, KB2AH, VE1ALQ, SM2CEW and K2DH - activity and conditions were good. Frank would like to work a VK station on 1296 and is looking for skeds. His e- mail address is: FRANK, W4UHI Frank runs 500 w to a 5.5 m dish, and is willing to get on at any time convenient to the VK station as he is retired and available any time. His western window is limited to max of 260 deg in AZ, and a min of 25 deg in el due to trees. His grid locator is EN73ah.

### W4OP

Dale is now active on 23 cm EME with 2 x N6CA amp and a 12' dish with KB2AH feed/preamp. He worked on 29 June OZ4MM for initial #23, F5PL, W2UHI, KB2AH, SM3AKW #24, VE1ALQ, N6BQ #25, DJ9YW, K2DH and F1ANH #26. Dale plans to have a 4 x 2C39 (KB2AH) amp finished for the Aug SW. He notes that he is having a lot of fun and improving things 0.1 dB at a time.

#### **ZS6AXT**

Ivo writes -- My XYL is back from OK2, so things are again back to normal. I worked on 13 cm on 27 July DL9EBL (2304/2424) (559/559) for initial #20 -but only after I moved my frequency and still have a bit of a problem to settle the frequency of my xtals. After the sked I changed quickly the xtal to 2320 and there was DL9EBL booming (579). It looks like something in my 13 cm RX chain is not quite right. I didn't hear anybody else on 2320. On Sunday with strong winds I changed to 23 cm and worked W2UHI, K2DH, OH2AXH, VE1ALQ, SM2CEW, F2TU and K2UYH (SSB/CW) on the horizon. I heard quite a few SSB stations well. Others heard were PA3CSG, HB9SV, S59DCD, HB9BHU, KB2AH, DL9EBL and OE9XXI. Conditions seemed to be good, received reports were (549 to 569). Life is better in perigee! I am still missing a QSL card from OE9XXI for our 13 cm QSO.

### K2UYH

I was on 432 the 1st night of the July SW and found quite respectable activity. I worked on 26 July at 0750 SM2CEW (559/559), 0802 N9AB (569/559), 0812 CT1DMK (549/449), O837 WB6IMC (549/579), O900 G4ERG (549/549), 0915 G3HUL (559/559), 0933 SM3AKW (559/559), 0945 DL4KG (559/449) and 1005 G3LTF (559/559). Signals were fair, but had some QSB to them. DL4KG had a much improved signal. The next day I moved to 1296 and found

plenty of activity and good signals. QSO'd were at 0807 W2UHI (56/53) on SSB, 0815 F2TU (56/44) on SSB, 0820 KB2AH (57/56) on SSB, 0835 OH2AXH (569/569), 0844 ON5RR (449/549), 0853 DL9EBL (56/56) on SSB, 0908 VE1ALQ (55/55) on SSB, 0915 OE9XXI (58/55) on SSB, 0935 ZS6AXT (559/55) - one way SSB and KB2AH again on SSB. Things quieted down after 1000. We have completed the base for a new dish to be used on 10 GHz - TNX KB2AH. My Moon window is very limited to the west as well as the east in the summer. I thus was not on for the JAs because of the low dec of the SW. I am interested in skeds with JA stations at higher dec non-SWs. Stations interested in skeds should contact me via e-mail.

# **NETNEWS**

**W5ZN** expects to be QRV on 70 cm EME in Aug.

**W4HHK, WA4NJP, WA8WZG, W4RDI and WD5AGO** were not QRV during the July SW because of attendance at the CSVHF Conference.

**VE4MA** has his new dish in place and is working on feed mounting. He is also working on a 23 cm PA using a Russian tube.

**K6IBY** is re-doing his final and should be QRV again on 70 cm in a few weeks.

**WB6IMC** worked W7QX and JA5OVU in June. He is running 4 x 37 el K1FO type yagis and 1.5 kw.

**KA0RYT** was at CSVHF Conference, and is ready to dig a hole for his 4.6 m dish.

**F5SDD** club station has antenna problems and must move their array. They were not QRV on 70 cm as planned for the July SW, and will let us know when they will be operational in the future.

**K9BCT** was listening on 23 cm during the July SW and reports DD1XF had a great signal.

**W7QX** back in June worked K1FO and JA5OVU on 432. He also QRZ'd for an hour a JR4???, but could not get the full call. Jerry was at the CSVHF Conference in July.

**W8ATH** is reported to have 100 w and a 3.5 m dish from EN80 on 23 cm EME. His e-mail is:

W8ATH

# FOR SALE

W1ZX has for sale a General Radio IF amplifier 1236A 30 MHz IF \$US150, Dielectric-Coaxial Dynamics 1000A Wattmeter \$US115, Bird 43 Watt meters (1) \$170, (2) \$185, (3) \$200 with new meter movement, AIL 75 Noise Figure Meter \$US275, AIL 7010 Noise Generator \$US25, AIL 70 Diode Noise Generator \$US25, Hewlett Packard 349A UHF Noise Source \$US25, Noise Comm Noise Diodes NC305 \$33, HP 415A SWR meter \$US30, 2 Transco "Y" type relays with both coils energized to close feature \$US50. All prices plus cost of shipping. Call Willie at 301 645 5584, 2000-2230 EST, FAX 301 645=20 6853, 24 hrs, e-mail Willy, W1ZX

DD1XF is looking for a variable phase shifter for 2.3 and 5.7 GHz. [An adjustable length line, "line stretcher", will serve this function.]

WD5AGO has circuit boards available for his 23 cm dual stage LNA, typically .35 dB NF and 30 dB gain.

KB2AH has a full line of cavity amps and 1, 2, 4 and 6 tube ring amps, lin/circular feed horns and LNAs for 432 and 1296... And recently he has added mounting blocks for K1FO yagis. For full details see Tom's 1296 WEB page: Tom, KB2AH

for more details and pricing info e-mail: <u>Pricing Info</u> or phone 908-223-5067, FAX 908-223-0901 (24 hrs) or voice 908-223-8124=20

# **FINAL**

I am afraid this sounds like a broken record, but this NL is again a rush job. I am going away for a week's vacation, but have delayed leaving to get this out - please excuse any errors.

<sup>\*</sup> The summer standing update from W0KJY has been delayed. Jim had a hard disk crash and lost the standings. He is trying to get things back together. But it is probably best to re-send your standings updates.

<sup>\*</sup> Apparently a number of scores were missing from the ARRL's 97 EME Contest write-up. SM4IVE's score, the top on 70 cm, for example. I am trying to find out what went wrong and will report back.

- \* A topic of discussion on recent 20 m nets has been the problem of no shows on skeds. See K2DH's comments in this NL. This is not a new problem. NL skeds are made blind. Klaus and Joe try to weed out requests that are obviously impossible. But with the increase in activity, (Yes activity has increased over the years!), it is very difficult to keep track of who is real and who is not. I have seen requests for skeds for stations who's calls were miss- printed, (or miss-reported HI), in a previous NL. Generally skeds coordinators have assumed the station requesting a sked knows that the other station is active, i.e., he may know something we don't. I think the skeds requester also has a responsibility to research the station he is requesting a sked with, and not request skeds with stations he knows nothing about.
- \* Another issue of discussion was the so called "weakie window" see KB2AH's comments on 1296. It was observed that on 70 cm the freq from .030 to .040 are supposed to be reserved for low power stations. WB5LUA observes that this rule appears to be observed except during contests... when un-QRM'd spectrum becomes scarce and it appears that all rules and gentlemens agreements are ignored. Personally I believe a single small station calling frequency will be more effective than the current frequency band on 432.
- \* Please keep the news and technical material coming. E-mail is now the preferred way to submit information. I will be looking for you all off the Moon during the Aug SW.

## 73, A1 - K2UYH

	1997 DU	BUS/REF	EME CONTEST	RESULTS=20	
			432 MHz		
1	OZ4MM	221100	67(+ 0) 33	QRP	SIN
2	UR5LX	204000	60(+ 0) 34	QRO	SIN
3	K4QI	150800	52(+ 0) 29	QRP	SIN
4	EA3UM	125000	50(+ 0) 25	QRO	SIN
5	SM3AKW	69300	33(+ 0) 21	QRP	SIN
6	JH0YSI	64000	32(+ 0) 20	QRO	MUL
7	F6CGJ	60800	32(+ 0) 19	QRO	SIN
8	KA0RYT	54200	27(+ 1) 20	QRO	SIN
9	W7QX	37400	22(+ 0) 17	QRP	SIN
10	ON4KNG	35700	21(+ 0) 17	QRO	SIN
11	PA2CHR	32300	19(+ 0) 17	QRP	sin
12	EA6ADW	30400	19(+ 0) 16	QRP	sin
13	7M2PDT	30000	20(+ 0) 15	QRO	sin
14	JA4BLC	21600	18(+ 0) 12	QRP	sin
15	JR9NWC	20400	17(+ 0) 12	QRO	SIN
16	JH4JLV	16500	15(+ 0) 11	QRO	SIN

17 18 19 20 21 22	DK3FB JJ1NNJ JA2TY F1IKA DL4KG	14410 13320 10800 10000 6300	13(+ 1) 11(+ 1) 9(+ 0) 10(+ 0) 9(+ 0)	11 12 12 10 7	QRP QRP QRO QRP QRP	SIN SIN SIN MUL SIN
23 24 25	CT1DMK JH1EFA K1OR N8XA	3600 1240 400 200	6(+ 0) 3(+ 1) 2(+ 0) 2(+ 0)	4 2 1	QRP QRP QRP QRP	SIN SIN SIN SIN
			1296 MHz			
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	OE9XXI F6CGJ OZ4MM SM3AKW F1ANH EA6ADW ZS6AXT K4QI F5PL F5PAU N6BQ CT1DMK JA4BLC EA3UM JH5LUZ ON5RR G4CCH IK6EIW	229400 194700 190400 160320 145700 145700 142100 136400 116000 109200 98000 71300 54000 47500 46800 37080 26600 14300	62(+ 1) 59(+ 0) 56(+ 0) 50(+ 1) 47(+ 0) 47(+ 0) 49(+ 0) 44(+ 0) 39(+ 0) 35(+ 0) 31(+ 0) 27(+ 0) 25(+ 0) 26(+ 0) 20(+ 6) 19(+ 0) 13(+ 0)	34 32	QRO QRP QRP QRO QRP QRO QRP QRO QRO QRO QRO QRO QRO QRP QRP QRP QRO QRO	SIN
19	DH9FAG	10800	12(+ 0) 2.3 GHz	9	QRP	SIN
1 2 3 4 5 6 7	OZ4MM ZS6AXT F1ANH I6PNN IK6EIW JA4BLC SM3AKW	14300 9000 9000 8100 5600 2500	13(+ 0) 10(+ 0) 10(+ 0) 9(+ 0) 8(+ 0) 5(+ 0) 1(+ 0)	9 7 5	QRP QRP QRO QRP QRP QRP QRP	SIN SIN SIN SIN SIN SIN
		1	0 GHz			
1 2	AA5C CT1DMK	100	1(+ 0)	4 1	QRO QRP	SIN SIN
			ltiband			
Pos	Call	Points	QSO	MULTI	Bands	

1	OZ4MM	425800	136(+ 0)	)	78	3
2	K4QI	287200	96(+ 0)	60	2	
3	F6CGJ	255500	91(+ 0)	52	2	
4	SM3AKW	233920	90(+ 1)	71	4	
5	EA6ADW	176100	66(+ 0)	47	2	
6	EA3UM	172500	75(+ 0)	44	2	
7	F1ANH	154700	57(+ 0)	40	2	
8	ZS6AXT	151100	59(+ 0)	38	2	
9	JA4BLC	81200	52(+ 0)	40	4	
10	PA2CHR	58900	38(+ 0)	31	2	
11	IK6EIW	19900	21	18	2	
12	CT1DMK	6500	14	11	3	
13	N8XA	500	5	2	2	

# AUG SKEDS

# AUG 22

Time	432.040	432.070
2200z 2230z 2300z	DL4KG -OZ4MM	DL4KG -7M2PDT EA3DXU-7M2PDT G4ERG -7M2PDT
	A	UG 23
Time	432.040	432.070
0630z 0730z 0930z 1000z 1330z 1400z 1430z 2230z	WB6IMC-HA1YA WB6IMC-K3HZO HP3XUG-DL3EAG WB6IMC-HP3XUG WB6IMC-VE6TA WB6IMC-NA4N JA9BOH-NA4N	7M2PDT-KF0M 7M2PDT-WB0GGM DL3EAG-7M2PDT
	A	UG 24
Time	1296.050	1296.075
0600z 0630z 0700z 0730z 0800z 0830z	VE3BQN-HA1YA VE3BQN-4X6UJ VE3BQN-DD1XF VE3BQN-DH9FAG VE3BQN-S59DCD VE3BQN-DF3RU	EA3UM -ON5RR GW3XYW-ON5RR K5JL -ON5RR K5JL -9H1ES

0900z 1000z 1030z 1300z	VE3BQN-G4CCH K9ZZH -VE3BQN WA8WZG-VE3BQN N6BQ -NP4B
	Skeds for Aug 1997
	This information was obtained from Scott, KD4LT
	Top Page
	For Comments or corrections: Rein, W6/PA0ZN